

Schedule of Events

Wednesday, March 28, 2007

8:00-9:30 am	Council of Air Conditioning and Refrigeration Educators (CARE) Meeting, Introductions, Officer and Board Nominations
9:30 am-12:00 pm	Educational Sessions
12:00-1:00 pm	Lunch (CARE participants only)
1:00-1:30 pm	CARE Officer Elections
1:30-4:00 pm	Educational Sessions
4:00-5:00 pm	New Officer/Board Introductions and Planning Session for CARE
5:00-6:00 pm	"Behind the Scenes" Tour of National Conference Center
5:00-7:00 pm	Dinner
6:00-9:00 pm	ICE, RSES, NATE Exams (Complimentary)
7:00-9:00 pm	Opening Reception and Tabletop Exhibits

Thursday, March 29, 2007

6:30-8:00 am	Breakfast
8:00-9:30 am	Opening General Session
9:45-11:30 am	Educational Sessions
11:30am-1:00 pm	Lunch
1:00-2:45 pm	Educational Sessions
3:00-4:45 pm	Educational Sessions
5:00-6:30 pm	Dinner
6:30-8:00 pm	Instructional Seminar
8:00-10:00 pm	Reception and Tabletop Exhibits

Friday, March 30, 2007

6:30-8:00 am	Breakfast
8:00-8:45 am	Career & Technical Education Update
9:00-9:45 am	"I've Got an Idea" Session
10:00-11:30 am	Educational Sessions
11:30 am-12:15 pm	Closing General Session
12:30-1:30 pm	Lunch
1:30-4:00 pm	ICE, RSES, NATE Exams (Complimentary)

About the Instructor Workshop

Purpose

For 2007, ARI, ACCA, PHCC, and RSES have joined together with CARE, GAMA, HARDI, NATE and SkillsUSA to offer a new and improved workshop for HVACR and plumbing educators. The Workshop is an excellent way for instructors of HVACR and plumbing programs to learn about some of the latest industry issues, instructional techniques and gain access to industry experts. The three-day workshop also provides an opportunity for instructors to exchange ideas and information. **16 hours of continuing education credit will be offered by ARI for this workshop.**

In addition to a wide variety of educational sessions, the 2007 Workshop will include manufacturer booths and hands-on technology sessions so instructors can learn more about new and emerging technologies.

Who Should Attend

- ♦ Plumbing and HVACR Instructors, Administrators and Counselors
 - ♦ Secondary Programs, Post Secondary Programs, Proprietary Programs
- ♦ Apprentice Program Instructors and Administrators
 - ♦ Plumbing
 - ♦ HVACR
 - ♦ Apprentice Program Advisory Committee Members
- ♦ Council of Air-Conditioning and Refrigeration Educators (CARE)
- ♦ ACCA, PHCC and RSES Chapter Leaders
- ♦ Managers of Company Training Programs
- ♦ Training Instructors Affiliated with GAMA, HARDI and NATE Programs



Location, Lodging Information and Costs

- ♦ The conference will be held at the National Conference Center in Lansdowne, Virginia, in close proximity to Dulles Airport.
- ♦ Participants will need to register for the Workshop using the form in this brochure. Please return all registration forms to ARI at the address listed on the form.
- ♦ Check-in is between 3 and 6 pm on the day of arrival. Cost of lodging includes dinner on day of arrival and breakfast, lunch and breaks the following day.
- ♦ Lodging and registration costs are \$166 plus tax per night for a single room, which also includes all seminars, meals and refreshment breaks. Double rooms are available upon request. For those not staying at the center, the cost to attend is \$60 plus tax per day, which includes seminars, meals and refreshments. Lodging reservation information will be provided upon registration for the workshop.
- ♦ Registration must be completed on or before March 1, 2007.

2007 Exhibitors

As of November 1, the following exhibitors will be participating in the 2007 Workshop:

ACCA
ARI
Bennette Design Group
BPI
Bradford-White Corp.
CARE
Carrier
Cast Iron Soil Pipe Institute
Copper Development Association
Delta Faucet Company
Emerson Climate Technologies
Ferris State University
Fieldpiece
GAMA
GE/Regal Beloit
Hydro Delta
InSinkErator
Lennox
NATE
NIBCO INC.
Pennsylvania College of Technology
PHCC
Prentice Hall
Rheem
RSES
Thomson Delmar Learning
TRANE

2007 HVACR & Plumbing Instructor Workshop

March 28-30, 2007

National Conference Center
Lansdowne, Virginia



Presented by:



HEATING, AIRCONDITIONING & REFRIGERATION DISTRIBUTORS INTERNATIONAL

About the Sessions

Wednesday, March 28, 2007

9:30 am - 12:00 pm and 1:30 - 4:00 pm

Introducing Hydronics & System Design to Your Program

Presented by Greg Goater, Isaac University

Learn how to lay out hot water systems from a non-engineering point of view. Practical “rules of thumb” will be shared for zoning, near boiler piping, and pump selection. Get the latest resources for adding a hydronic component to your program.

Teaching Heat Pump Applications

Presented by Rob Bates, Delaware Technical & Community College and Joel Owen, Alabama Power Training Center

This session will provide educators with tips and methods to better teach the objectives and materials involved with AC and HP operation and troubleshooting.

Teaching Building Science as it Relates to HVAC

Presented by Joe Kounen, BPI

Learn the basics of building science principles and diagnostic tools/procedures. This session will include common examples of building failures and demonstrate how these can be prevented or solved by following building science rules.

Teaching Refrigeration Fundamentals

Presented by Mark Peila, Bates Technical College

This session is intended for new instructors. Some of the areas of discussion will be classroom etiquette, delivering concepts in a lecture, preparing demonstrations, providing resources and the challenges of dealing with students in the classroom.

Entry-Intermediate Level ECM Motor Theory (9:30 only)

Presented by Chris Mohalley, GE/Regal Beloit

This session will cover the ECM indoor blower motor in depth including construction, operation, set-up, troubleshooting and repair. Learn how to teach technicians to install, service and maintain ECM motors with confidence and competence.

Introducing the Sheet Metal Trade to Your Program (1:30 only)

Presented by Bob Feathers, CARE

Learn how to add basic instruction in sheet metal to your program. This session will cover basic duct design, sheet metal fittings and installation techniques needed by new installers.

7:00 - 9:00 pm

Opening Reception & Tabletop Exhibits

Reception sponsored by Thomson Delmar Learning

Thursday, March 29, 2007

8:00 - 9:30 am

Opening General Session: “Peak Oil” Myth or Reality

Presented by James McGarvey, NY State Weatherization Directors' Association

Many sober voices say the coming energy crisis is the biggest problem facing our country today. This presentation will examine the evidence on both sides of the issue and compare the implications and solutions if the world is truly at “Peak Oil”.

9:45 - 11:30 am Sessions

Digital Electric Motor Theory, Advanced ECM & Variable Speed Motor Troubleshooting

Presented by Chris Mohalley, GE/Regal Beloit

This session will cover the latest advanced HVAC topics including digital electric motor theory, advanced ECM and variable speed motor troubleshooting.

EPA Section 608 Certification Update. R-22 Phaseout

Presented by Cindy Newburg, EPA

Join us for this session that will bring you up-to-date on the latest issues related to EPA Section 608 certification and R-22 phaseout.

Ground Source Heat Pumps: No Longer a Niche Market

Presented by John Herbert, Hydro Delta

Investigate how ground source heat pumps work, the versatility of applications and the benefits of the technology beyond the savings.

Right Sizing Hydronics: Understanding the Basics

Presented by Gary Hayden, Premier Comfort Systems

Learn how to size hydronics system components correctly to increase efficiency and comfort.

1:00 - 2:45 pm Sessions

Digital Electric Motor Theory, Advanced ECM & Variable Speed Motor Troubleshooting

Presented by GE/Regal Beloit

This session is a repeat of the 9:45-11:30 am session.

Using Simulation Software for Teaching HVACR Troubleshooting

Presented by Art Miller, Simutech

Learn why computer-based simulators are invaluable tools for teaching theory-of-operation and troubleshooting of HVACR equipment. The session will include a demonstration of several types of simulators.

Computer Technology and Teaching the Fundamentals of Electricity

Presented by Eric Quilitzsch, Ferris State University

Learn how to use prepackaged software tools to teach troubleshooting of electricity for HVACR. Modules demonstrated will include converting “Point to Point” to “Across the Line” diagrams, component definitions, and troubleshooting.

New Joining Processes for Copper & Copper Alloys

Presented by Dale Powell, Copper Development Assn.

Learn the latest techniques for joining copper and copper alloys: push-to-connect, press-to-connect, T-Drill, roll-grooved joining, soldering and brazing.

3:00 – 4:45 pm Sessions

Constructing PowerPoint Presentations

Presented by Dick & Irene Wirz

Join us for this hands-on session geared toward beginning and intermediate PowerPoint users. Learn how to make simple presentations and how to import graphics and other materials for added interest.

Distance Learning Using Technology

Presented by Eric Quilitzsch, Ferris State University

This dynamic session focuses on using existing BAS technology as a teaching tool on the Web, creating Virtual HVAC Systems and Buildings for teaching to distance learning students, and using Terminal Services, Remote Desktop and other tools you may already have.

Psychrometrics and Comfort

Presented by Tim Storm, TRANE Learning Resources

Learn how to apply psychrometric principles to comfort for the homeowner and business owner.

Well and Storm Pumps

Presented by Barry Nauss, Grundfos

Get the latest information on troubleshooting well and storm pumps from industry experts.

6:30 – 8:30 pm Session

Maximizing Learning with PowerPoint

Presented by Jack Bartell, Virginia Air Distributors

This advanced PowerPoint session will go beyond basic design into techniques for maximizing the learning experience for students. Learn how to make your instruction come alive!

8:00 - 10:00 pm

Reception and Exhibits/Technical Mini-Sessions

Reception sponsored by Prentice Hall

Friday, March 30, 2007

8:00 - 8:45 am Session

Career and Technical Education Update

Presented by Tim Lawrence, SkillsUSA

SkillsUSA’s Tim Lawrence will update participants on the latest in career and technical education at the national level.

9:00 - 9:45 am Session

“I’ve Got an Idea”

Facilitated by Greg Goater, Isaac University

Have an idea that can help your fellow educators and advisory committee members? Bring the idea and share it in this open format session.

10:00 – 11:30 am Sessions

Designing Curriculum & Instructional Methods for Adult Learners

Presented by Kathy Corr, NATE

How are we smart, not how smart we are! Learn how to reach adult learners through multiple instructional methods. Get the latest tips for making your curriculum and instruction adult-friendly.

Student Recruitment and Promoting Career & Technical Education in the Community

Presented by Jim Bergmann, Cuyahoga Valley Career Center; Richard Carrington, PHCC of the Sacramento Valley; Andy Erbach, Elgin Community College; Rich Hoke, Elgin Community College; Scott Naill, Upper Valley JVS; and Joey Teets, Fairfax County Public Schools.

Join our panelists from around the country we discuss how to promote career and technical education and recruit students in the community. This is an interactive session with a question-and-answer format!

Building Science

Presented by Terry Norris, Advanced Energy

Basic, common sense building science knowledge is crucial for HVAC contractors, who are often blamed for comfort problems, moisture issues, and high bills, even when they design a good system and install it properly. Learn how to look at those elements and diagnose future problems.

Residential Duct Design and Its Impact on Blower Selection

Presented by Bill Chadwick, Carrier

Learn a 4-tier evaluation technique for use on existing and new air distribution system installations to determine system shortfalls and how to correct/avoid them.

11:30 am - 12:15 pm Session

Closing General Session: Energy in America

Presented by Chandler von Schrader, U.S. Dept. of Energy

***Seminar schedule subject to changes & additions.**

Instructor Workshop Registration

Please check all that apply.

_____ I will attend the 2007 HVACR and Plumbing Instructor Workshop on March 28-30, 2007.

_____ I will attend the CARE sessions on March 28, 2007.

_____ I plan to stay at the National Conference Center. \$166+ per person per night includes seminars, room, meals and breaks.

_____ I do not intend to stay at the National Conference Center. \$60+ per person per day rate includes seminars, meals and breaks.

Name

School/Company

Address

Phone

Email Address

Registrant Information

Focus

☐ HVACR

☐ Plumbing

Type of Work

☐ Instructor

☐ Advisory Committee

☐ Administrator

☐ Other/Exhibitor/Presenter

Please return registration form to:
ARI Education & Training Department
4100 N. Fairfax Drive, Suite 200
Arlington, VA 22203

Tel: (703) 524-8800 ♦ Fax: (703)528-3816